

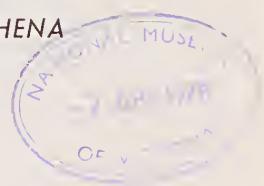
# MISCELLANEOUS NOTES ON ENDEMIC TASMANIAN PLANTS IN THE GENERA

OLEARIA, IXODIA, XYRIS, DANTHONIA, TETRARHENA

by

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## COMPOSITAE

*Olearia lanceolata* (Benth.) D. I. Morris, stat. et comb. nov.  
*Olearia persoonioides* (DC. ut *Eurybia* sp.) Benth. var. *lanceolata* Benth.,  
*Fl. Austral.* 3, 471 (1867)

In the Tasmanian Herbarium, Bentham's variety *lanceolata* of *Olearia persoonioides* is represented by a specimen labelled in Leonard Rodway's handwriting but without details of locality, collector, or date. The status of this taxon remained in doubt until, in November 1973, Dr. and Mrs. D. Ratkowsky collected from Eaglehawk Neck, and later from other localities in the south-east, material of plants which appear to agree with Bentham's description of *Olearia persoonioides* var. *lanceolata* and which match the earlier specimen named by Rodway.

These plants differ considerably in floral and vegetative characters from *O. persoonioides* and occupy entirely different habitats. Bentham's variety is found in light forest in the south and east of the State from near sea level to an altitude of about 300 m; *O. persoonioides* is found on the central plateau and on exposed slopes of mountains at altitudes of from about 600 to 900 m.

Bentham's variety is now raised to specific rank but, since it has not been possible to locate his type, a neotype has been selected.

NEOTYPE: Cash's Lookout, Eaglehawk Neck, Tasmania - D. & A. Ratkowsky, 10.xi.1973 (HO).

DUPLICATES: (K, Herb. Queen Victoria Museum Launceston).

Following is an amplified description:

A stout erect shrub up to 2 m high. Leaves alternate, shortly stalked, coriaceous; blade up to 8 cm long, narrowly oblong-elliptical, apex rounded or shortly emarginate, margins shortly recurved, upper surface dark green, shining, with paler raised reticulate venation, lower surface with a dense buff-coloured tomentum of T-shaped hairs. Flower-heads numerous, stalked, 1 - 3 together on a common peduncle, the peduncles in axils of the uppermost leaves of the current season's growth, longer than the leaves. Involucre turbinate, 8 - 11 mm long; phyllaries narrow-lanceolate, tomentose, divergent. Florets white, c. 35, of which 6 - 10 are ligulate, ligules c. 1.2 cm long, 5 mm wide. Achenes c. 3 mm long, glabrous except for a ring of short woolly hairs below the pappus; pappus ± equaling the disc florets, straw-coloured, barbellate, with slightly plumose tips.

*Ixodia achlaena* D. I. Morris, sp. nov.

Frutex rigidus, erectus, ramosus, usque ad 2 m altum, ramis in pseudoverticillis e subter inflorescentiis annotinis orientibus; rami juniores, folia et pedunculi tomento albo (quod sub exsudato denso, viscido, luteo celatum est) praediti. Folia alterna, diffusa vel recurvata, usque ad 2.5 cm longa, anguste linearia, marginibus valde recurvatis paene paginam inferiorem tomentosam occultantibus; folia juniora flavo-virentia, atro-viridescentia. Capitula plurima, breviter pedunculata, in corymbis densis planatis disposita qui in ramis summis terminales sunt. Involucrum ca. 5 mm longum, cylindricum, tegulis flavo-virentibus scariosis. Tegulæ extimae ovatae-lanceolatae, obtusatae, ad basim lanatae viscidæ; intimæ laminis conspicuæ radiantibus lactaneis ornatae, laminae dimidio breviores quam ungues anguste-lineares. Receptaculum plus minusque complanatum, squamis nullis; flosculi 4 - 5, hermaphroditi, involucrum aequantes vel parum superantes. Corolla straminea, ca. 3 mm longa. Antherae caudatae; stylus ad basim bulbosus; stigmata capitata, minute papillata. Achenium ca. 1.2 mm longum, papillis elongatis curvatis obductum quae circum apicem annulum faciunt. Pappus nullus.

HOLOTYPE: Franklins Road above Hospital Creek near Kellevie, Tasmania - D. & A. Ratkowsky and W. M. Curtis, 19.xii.1973 (HO).

ISOTYPES: (K, Canb., Herb. Queen Victoria Museum Launceston).

A stiffly erect, much-branched shrub up to 2 m high, the branches arising in false whorls from beneath the previous years inflorescence; young branches, leaves and peduncles with a white tomentum which is hidden beneath a dense viscid yellow exudate. Young branches golden yellow. Leaves alternate, spreading or recurved, up to 2.5 cm long, narrow-linear, margins strongly recurved almost concealing the strongly tomentose lower surface; young leaves yellow-green, becoming dark green with age. Flower-heads numerous, shortly stalked, clustered in dense flattened corymbs terminal on upper branches. Involucrum c. 5 mm long, cylindrical; phyllaries pale greenish-yellow, scarious; outermost ovate-lanceolate, obtuse, woolly hairy at the base, viscid; innermost with conspicuous radiating milky-white laminae c. half as long as the narrow-linear claw. Inflorescence-axis flattish, without scales; florets 4 - 5, hermaphrodite, equalling or slightly exceeding the involucrum. Corolla yellowish-white, c. 3 mm long. Anthers tailed; style bulbous at the base, stigmas capitate, minutely papillose. Achene c. 1.2 mm long, covered with elongated curved papillæ which form a ring around the apex. Pappus absent.

In November 1973 Dr. and Mrs. D. Ratkowsky discovered an undescribed species of *Compositae* growing in the vicinity of Hospital Creek near Kellevie. This plant closely resembles species of the genus *Ixodia* in floral and in vegetative characters although it lacks scales on the receptacle of the capitulum. It is therefore placed in the genus *Ixodia* with the specific epithet *achlaena* (without a cloak) referring to the absence of scales.

## XYRIDACEAE

*Xyris gracilis* R.Br. subsp. *tasmanica* D. I. Morris, subsp. nov.  
*Xyris* species "A" Evans, in *Contrib. N.S.W. Nat. Herb.* 4 (1): 7 (1966)

Ex affinitate *X. gracilis* R.Br. subsp. *gracilis*, a quo sepalis lateralibus alis latioribus et carinis plus minusque prominentibus scabridiusculis, e basi ad apicem, differt.

HOLOTYPE: Blackmans Bay, 13 km south of Hobart, Tasmania - W. M. Curtis, 20.i.1952 (HO)

ISOTYPES: (K, Canb., Herb. Queen Victoria Museum Launceston)

A perennial resembling *X. operculata* but more slender. Leaves rigid, erect, 10 - 30 cm long, 0.8 - 2.0 mm broad; blade flattened laterally, thick, erect or sometimes tortuous, narrow-linear, apex tapered to an acute point, margin narrow-rounded, pale, serrulate; sheath brown, 2.5-4.0 cm long, ligule short, often emarginate. Scapes 30 - 50 cm long, slender, terete, rigid, often twisted, closely subtended by a twisted sheath 6 - 9 cm long having the

apex mucronate or aristate; the closely appressed next outer leaf having a sheath channelled along the inner surface, the channel bounded by scabrid keels, the blade reduced to a short point. Flower-heads usually ellipsoid or obovoid, sometimes ± globose, 5 - 8 mm long, the 2 or 3 lowermost bracts sometimes ± spreading, oblong with apex truncate or bluntly pointed, margin and apex ± torn, base shortly sheathing the peduncle; intermediate and upper bracts larger, broadly oblong-obovoid in outline with a central area hard, elliptic, usually paler in colour than the wings, wings entire or ± torn, apex usually emarginate. Flower with lateral sepals 5 - 6 mm long, keeled, keel scabridulous, wings broad, membranous, entire; median sepal very broadly obcordate. Petals pale to golden-yellow, lobes rounded, c. 5 mm broad. Stamens with anthers c. 1.5 mm long. Ovary 3-lobed, the apex not hardened.

Tasmanian plants formerly known as *Xyris gracilis* R.Br. have been shown to differ from *X. gracilis* R.Br. subsp. *gracilis* [O. D. Evans in *Contrib. N.S.W. Nat. Herb.* 4 (1): 7 (1966)] in having wider wings to the lateral sepals and in having a tetraploid chromosome number,  $2n = 52$  [B. G. Briggs, Chromosome numbers of some Australian Monocotyledons, *Contrib. N.S.W. Nat. Herb.* 4 (1): 26 (1966)]. The subspecies *tasmanica* is now named to provide for the distinct Tasmanian populations.

#### GRAMINEAE

##### Danthonia pulvinorum D. I. Morris, sp. nov.

Gramen parvum glabrum caespiticium sub-alpinum, usque ad 12 cm altum. Folia basi culmi fasciculata, vaginis costatis; ligulae minutae, ciliatae, ad margines caespitibus pilorum longiorum; laminae usque ad 2 cm longas, arcute involutae, aciculares, arcuatae. Culmus rigidus, erectus. Inflorescentia 2 - 3 spicularem; omnes spiculae ca. 5.5 mm longae, 3 - 4 flosculorum quam glumis breviores. Glumae virides marginibus latis purpureis, inferior superiorem superans, late lanceolatae, obscure 3-nervatae. Corpus lemmatis obovatum, 9-nervatum, ca. 1.7 mm longum, callo brevi hirsuto, pilis sparsis minutis in serie inordinata super callum, vel cum vel sine caespitibus paucis pilorum, ca. 0.5 mm longorum, in serie sub sinu instructum; margines pilis candidis adpressis; lobi laterales ca. 1 mm longi, ad basim lati, ad apicem acutum curvati vel in setas usque ad 1 mm longas angustati, marginibus minute ciliatis; arista centralis ca. 3 mm longa, parte infera ca. 1 mm longa, mellea, semel torta. Palea lobos laterales lemmatis, sine setis, plus minusque aequans, oblanceolata, apice breviter emarginato; carinae minute denseque ciliatae, pilis paucis longis adpressis circa medium inter margines et carinas.

HOLOTYPE: Mother Lords Plains, north of Great Lake, Tasmania - T. E. Burns, 15.i.1969 (HO).

ISOTYPES: (K, CANB, Herb. Queen Victoria Museum Launceston).

A small tufted glabrous subalpine grass up to 12 cm high. Leaves clustered at the base of the culm, sheaths striate, ligule a minute ciliate rim with tufts of longer hairs at the margins; blades tightly inrolled, acicular, arcuate. Culm stiff, erect. Inflorescence consisting of 2-3 spikelets, each c. 5.5 mm long, the 3 - 4 florets shorter than the glumes. Glumes green with broad purplish margins, subequal, the lower slightly exceeding the upper, broad-lanceolate, obscurely 3-veined. Body of the lemma obovate, 9-veined, c. 1.7 mm long including the hairy callus, with a few minute hairs in an irregular row just above the callus and with or without a few tufts of hairs c. 0.5 mm long in a row just below the sinus, margins with appressed white hairs; lateral lobes c. 1 mm long, broad at the base, curving to an acute apex or ending in setae up to 1 mm long, margins minutely ciliate; central awn c. 3 mm long, the lower, flattened portion c. 1 mm long, golden brown, once twisted. Palea ± equalling the flattened portion of the lateral lobes of the lemma, oblanceolate, apex shortly emarginate, keels minutely and densely ciliate with a few long hairs between the margins and the keels at about the mid-point.

In January 1969, Mr. T. E. Burns collected on Mother Lords Plains, north of Great Lake, material of a small *Danthonia* which is now recognised as a new species. Because the specimens collected then, and subsequently, were all growing in cushions of either *Donatia novae-zelandiae* J. R. & G. Forst, or of *Abrotanella forsterioides* (Hook.f.) Hook.f.ex Benth. the new species is given the

epithet *pulvinorum* meaning "of the cushions".

Tetrarrhena oreophila D. I. Morris, sp. nov.

Gramen glabrum caespitosum, alpinum vel sub-alpinum, culmis erectis 5 - 15 cm altis. Folia maximam partem basalia; vaginæ costatae, ad margines hyalinae, apices eorum pilis longis marginalibus; ligulæ membranaceæ; laminae 1 - 8 cm longae, rigidæ, erectæ, planæ vel arcte involutæ; laminae culmorum quam laminae basales parviores. Inflorescentia erecta racemum vel paniculam reductam formans, ramis pedunculatis brevibus scabellis. Spiculae 4 - 6 mm longæ. Glumæ ovatae, 1 - 3 nervatae, hyalinae. Lemmata sterilia (inferius brevius quam superius), 3 - 5 nervata, lanceolata, indurata, scabridiuscula, apicibus eorum acutis vel apiculatis. Lemma fertile brevius quam lemma sterile superius, lateraleriter compressum, 3 - nervatum, apice obtuso. Palea brevior quam lemma fertile. Antheræ duæ (vel aliquante una), 1.2 - 1.5 mm longæ. Lodiculae 0.8 - 1 mm longæ, suborbicularis.

A glabrous, tufted, subalpine grass, the culms erect, 5 - 15 cm high. Leaves mostly basal, sheaths ribbed, margins hyaline; ligules membranous with tufts of long hairs at the margins; blades stiff, tightly inrolled or flat, stem leaves smaller than basal leaves. Inflorescence erect, a raceme or reduced panicle, the branches and peduncles short, scabrid. Spikelets 4 - 6 mm long; glumes ovate, 1 - 3 - veined, hyaline; sterile lemmas lanceolate, indurated, minutely scaberulous, apices acute or acuminate, 3 - 5 - veined, the lower shorter than the upper; fertile lemma shorter than the upper sterile lemma, laterally compressed, 3 - veined, apex obtuse; palea shorter than the lemma. Anthers 2 or occasionally 1, 1.2 - 1.5 mm long. Lodicles suborbicular, 0.8 - 1.0 mm long.

Two distinct varieties are recognizable, viz.:

T. oreophila D. I. Morris var. oreophila

Laminae foliorum arcte involutæ, 1 - 8 cm longæ, pilis multis ad apices vaginarum; ligula ca. 1 mm longa, triangularis, marginibus minute laciniatæ. Inflorescentia paniculata sed reducta, 2 - 3 cm longa, 2 spiculas quoque nodo ferens. Spiculae ca. 6 mm longæ, gluma inferior ca. 1.8 mm longa, gluma superior ca. 2.2 mm longa; lemma sterile inferioris 3 - 4 mm longum, superius ca. 4.5 mm longum, utrumque marginibus hyalinis et apicibus apiculatis; lemma fertile ca. 3.5 mm longum; palea ca. 2.5 mm longa. Antheræ plerumque 2 sed aliquando 1.

HOLOTYPE: Tarn Shelf, Mount Field National Park, Tasmania - D. I. Morris, 17.ii.1975 (HO).

ISOTYPES: (K, CANB, MEL, Herb. Queen Victoria Museum Launceston).

Leaf-blades tightly inrolled, hairs at apex of sheath numerous; ligule c. 1 mm long, triangular, margin minutely laciniate. Inflorescence a reduced panicle 2 - 3 cm long, bearing 2 spikelets at each node. Spikelets c. 6 mm long; lower glume 1.8 mm long, upper 2.2 mm long; lower sterile lemma 3 - 4 mm long, upper 4 - 5 mm long, both with hyaline margins and apiculate apex; fertile lemma 3.5 mm long; palea 2.5 mm long. Anthers usually 2, occasionally 1.

Collected from Adamsons Peak and from the margins of lakes and tarns in the Hartz and Mount Field National Parks. The specimen from Adamsons Peak, collected by L. Rodway in 1894, has fertile florets with 1 stamen only. This material was mistakenly identified as, and mounted with, *Microlaena tasmanica*. The specimen is now recognised as belonging to a new species of *Tetrarrhena* which is given the specific epithet *oreophila* (lover of mountains).

T. oreophila var. minor D. I. Morris, var. nov.

Laminae foliorum planæ, 1 - 3 cm longæ, pilis paucis ad apices vaginarum; ligulae truncatae, ca. 0.5 mm longæ, apicibus minute erosæ. Inflorescentia racemiformis, 0.75 - 2 cm longa. Spiculae ca. 4 mm longæ, gluma inferior ca. 0.8 mm longa, superior ca. 1.5 mm longa; lemma sterile inferius ca. 3 mm longum, superius ca. 3.5 mm longum, utrumque apicibus acutis; lemma fertile ca. 3 mm longum; palea c. 2.5 mm longa. Antheræ 2.

HOLOTYPE: Lake Dobson, Mount Field National Park, Tasmania - W. M. Curtis, 6.i.1948 (HO).

ISOTYPES: (K, Herb. Queen Victoria Museum Launceston).

Leaf-blades flat, hairs at apex of sheath few; ligules truncate, 0.5 mm long, apex minutely erose. Inflorescence a spike-like raceme 0.75 - 2.0 cm long. Spikelets c. 4 mm long; lower glume 0.8 mm long, upper 1.5 mm long; lower sterile lemma 3 mm long, upper 3.5 mm long, both with apex acute; fertile lemma 3 mm long; palea 2.5 mm long.

Collected from the margins of Lake Esperance and Lake Dobson.

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